

Biological Sampling Kit Specifications

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1. BSK Kitting Instructions
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Kitting instructions for Biological Sampling Kit (BSK)

1.0 Components for BSK

- 1.1. One Panel either a Training Panel or an Operational Panel
- 1.2. One Biological Sampling Kit instruction card (10 cm x 10 cm laminated card).
- 1.3. Two sterile Dacron fiber tipped plastic applicator swabs, packaged in one envelope (e.g. Fisher catalog no. 14-959-97B)
- 1.4. One 50 ml conical tube polystyrene containing one 4 ml clear LDPE dropper bottle with white PP closure (e.g. Fisherbrand catalog no. 03-007-16A) containing 4 mls of Assay Buffer (0.1% Triton X-100 and 0.04% Kathon in Phosphate buffered saline (PBS) at pH 7.4. Sterile filtered thru 0.22 µm filter). Assay buffer shall be stored at 2-8 degrees Celsius.

2.0 Kitting Instructions for BSK

- 2.1. Manufacturing shall take place in a humidity and temperature controlled, 20 to 25 degrees Celsius, assembly room that can maintain less than 40% humidity with ASHRAE efficiency of 90-95% filtration.
- 2.2. Personnel shall wear protective gloves, lab coat, and full hair coverage apparel.
- 2.3. Packaging instructions can be found in section A through I in the Special Packaging Instructions (SPI) number PJPOBSK.
- 2.4. Labeling instruction can be found in section T1 and U in the SPI document PJPOBSK.
- 2.5. Package and ship panels in accordance with commercial packaging or complete special packaging (SPI Number PJPOBSK) as directed on the Delivery Order.
- 2.6. The Contractor shall not implement engineering changes, or deviations which affect Government controlled documents without prior Government approval.

NOT APPLICABLE TO INTERPLANT SHIPMENTS (A)

SPECIAL PACKAGING INSTRUCTION(SPI)							NATIONAL STOCK NUMBER See Table 1
NOMENCLATURE DOD Biological Sampling Kit (see table 1)					UI BX(B)	QUP 10 (B)	SPI NUMBER (PN) PJPOBSKT
Cleaning & Drying shall be in accordance with MIL-STD-2073-1							
MILITARY PRESERVATION REQUIREMENT (MIL-STD-2073-1, Method 41)	STEPS	DRAWING OR SPECIFICATION	STYLE	TYPE	GRADE	CLASS	SIZE AND REMARKS (INCHES)
Container	(C) 1	MIL-DTL-117	1 or 2	I		E	5 x 10 ID
Dessicant	(D) 2						8 Bags required
Closure	(E) 3						Heat Seal
Wrap	(F) 4	A-A-59135		A		1 or 2	13 x 5 1/2
Tape	(G) 5	ASTM D 5486		V			As required
Container	(H) 6	MIL-DTL-117	1 or 2	I		E	9 x 14 1/2 ID
Closure	(I) 7						Heat Seal
Bottom Pad	(J) 8						
Side Pads	(K) 9						
End Pads	(L) 10						
Top Pads	(M)(N) 11						
Fiberboard Container	(P) 12	ASTM D 5118		CF	V3c	WR	18 5/8 x 13 1/8 x 15 5/8 ID
Closure	13	ASTM D 1974					Sealing Method C
Container	(Q) 14	ASTM D 6251	A	III		2	19 1/8 x 13 5/8 x 16 3/8 ID
Closure	(R) 15						

INTERMEDIATE PACKAGING AND PACKING <input type="checkbox"/> In accordance with MIL-STD-2073-1 <input checked="" type="checkbox"/> As specified hereon. (S)	MARKING <input type="checkbox"/> In accordance with MIL-STD-129 <input checked="" type="checkbox"/> As specified hereon. (T) (U)
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Unless otherwise specified, materials shall be minimum size in accordance with MIL-STD-2073-1. Tolerances shall be in accordance with material specifications.

QUALITY PERFORMANCE and TESTING REQUIREMENTS
☐ In accordance with MIL-STD-2073-1
☒ As specified hereon (V) (W) (X)

UNIT PACK LOGISTICS DATA				(Approximate unit pack weight and size)
Level of Pack	WEIGHT (POUNDS)	CUBE (CUBIC FEET)	SIZE (EXTERIOR FEET)	
A	14.25 lbs.	3.500 cu. ft.	1.76 x 1.30 x 1.53	
B	3.25 lbs.	2.335 cu. ft.	1.57 x 1.11 x 1.34	

TABLE 1		
This SPI Provides packaging requirements for the following items		
Nomenclature	Part Number	National Stock Number
DOD Biological Sampling Kit (Operational)	JPOBSKT-10	6665-01-494-8725
DOD Biological Sampling Kit (Training)	JPOBSK-20	6665-01-497-7811

REMARKS/ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED.

Original Preparer: Dean Hansen		Revised by:		Date:	
ITEM DATA (APPROX) ITEM CODE - _____ ITEM SIZE - 5 1/2 x 6 x 1 inches combined ITEM WEIGHT - .31 lbs for one kit	ECBC 81361 AMSRD-ECB-ENA-P				
	PAGE NUMBER 1	NUMBER OF PAGES 14	DRAFT DEC 6 2005		
			APPROVAL	REVISION	DATE

DISTRIBUTION STATEMENT A: Approved for public release, distribution unlimited.

SPECIAL PACKAGING INSTRUCTIONNATIONAL STOCK NUMBER
See Table 1

NOMENCLATURE

DOD Biological Sampling Kit (See table 1)

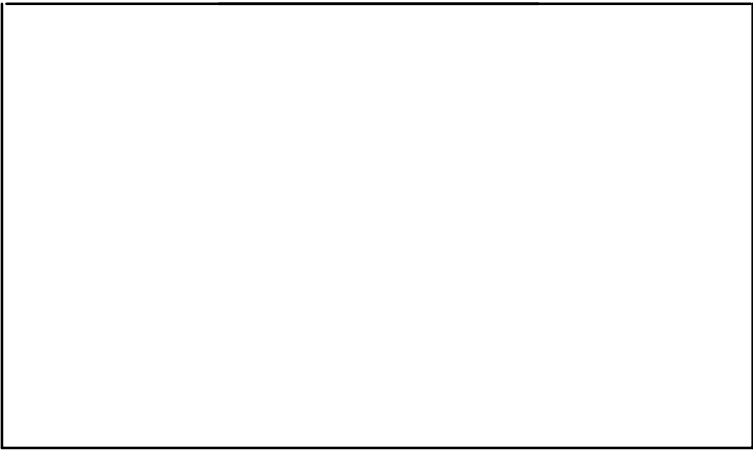
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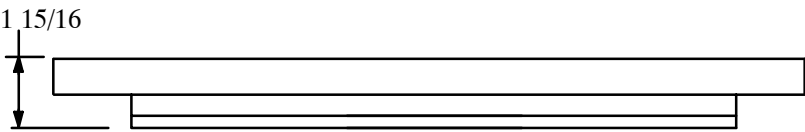
- (A) – **This SPI is not applicable for Interplant shipments.** Packaging and marking for interplant shipment is for supplies and materials that do not directly enter the military supply system. Typical interplant shipments are shipments from a vendor to a subcontractor or a prime contractor, or between contractors and subcontractors, or from a vendor or contractor to a military arsenal, plant, or other activity for evaluation, immediate use, or further processing as specified in the applicable contract.
- (B) – The unit of measure is box, each box contains 10 each DOD Biological Sampling Kits. Each DOD Biological Sampling Kit consist of the following items:
- a. One each Bottle containing two swabs and one each 4ml Bottle of Phosphate Buffer
 - b. One each instruction card
 - c. One each Panel assembly
- (C) – Place one Panel Assembly into the barrier bag.
- (D) – Place the 8 desiccant packs within the barrier bag (step 1). The desiccant shall be from Multisorb Technologies Inc. Product Name: MaxiPax Desiccant. part number 40AG07 Indicating Silica Gel.
- (E) – Closure of the barrier bag shall be accomplished by heat sealing. Heat sealing shall be accomplished in accordance with the barrier bag manufactures instructions. Excess air shall be removed from the barrier bag prior to heat sealing.
- (F) – Place the heat seal bag (steps 1 thru 3 of this SPI) containing the panel assembly, one each Bottle containing two swabs and one each 4ml Bottle of Phosphate Buffer and one each instruction card in a cushioning wrap (step 4 of this SPI) and secure wrap with tape conforming to step 5 of this SPI as required. As an alternate a foam pouch in accordance A – A – 59135, Grade A, class 1 or 2, size 13 x 5 1/2 x 1/8 OD inches with a 12 inch lip, may be substituted for the wrap called out in step 4.
- (G) – Secure wrap (step 4) with specified tape as required.
- (H) – Place the cushioned wrap or pouch (step 4 of this SPI) containing the Bottle containing two swabs and one each 4ml Bottle of Phosphate Buffer, one each instruction card and the barrier bag containing one panel assembly (steps 1 through 3 of this SPI) secured with tape conforming to step 5 of this SPI into a second barrier bag (step 6 of this SPI).
- (I) – Closure of the barrier bag shall be accomplished by heat sealing. Heat sealing shall be accomplished in accordance with the barrier bag manufactures instructions. Excess air shall be removed from the barrier bag prior to heat sealing.
- (J) – Fabricate the bottom pad as specified on page 3 of this SPI.
- (K) – Fabricate the side pad as specified on page 5 of this SPI.
- (L) – Fabricate the end pad as shown on page 6 of this SPI.
- (M) – Fabricate the top pad as shown on page 4 of this SPI.
- (N) – Assemble the Bottom Pad, Side Pads and End Pads as shown on page 7 of this SPI.
- (O) – Place 10 each bagged DOD Biological Sampling Kits inside the assembled Cooler Pack Assembly as shown on page 10 of this SPI.



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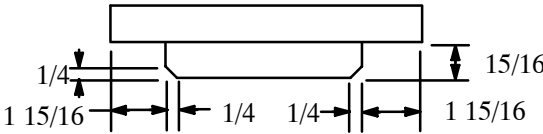
BOTTOM PAD

(1 Required)
MATERIAL
Shall be 1.8 to 2.2 lbs density per cubic foot polystyrene. The R or thermal value of the material used shall be no less than 4.3 R–value per 1 inch thickness of material. The standard tolerance for material shall be (– +) .09 inches. Suggested source of supply is: FPM Expandable Polystyrene, 2053 Commerce Street, Lancaster, Ohio 43130 Phone number (740) 687–5934



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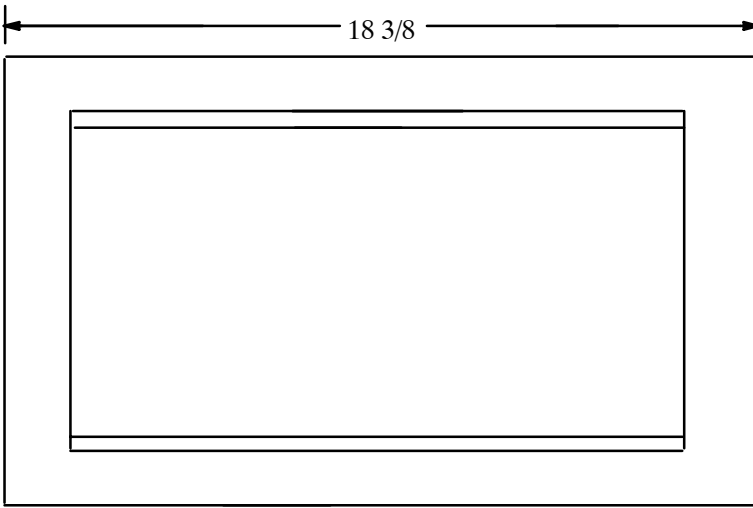
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DRAWING NOT TO SCALE
FOR REFERENCE ONLY

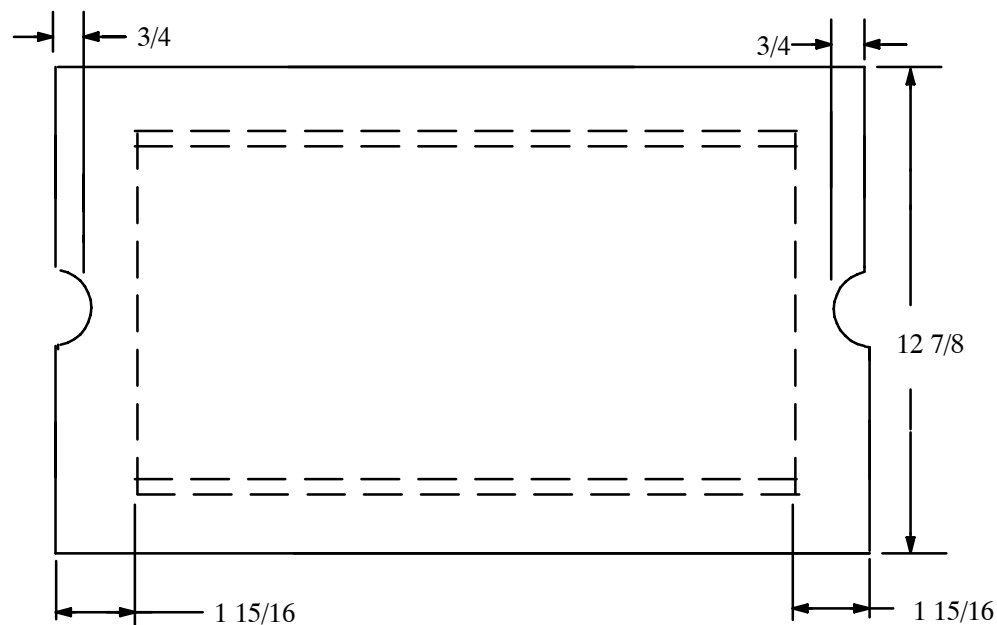
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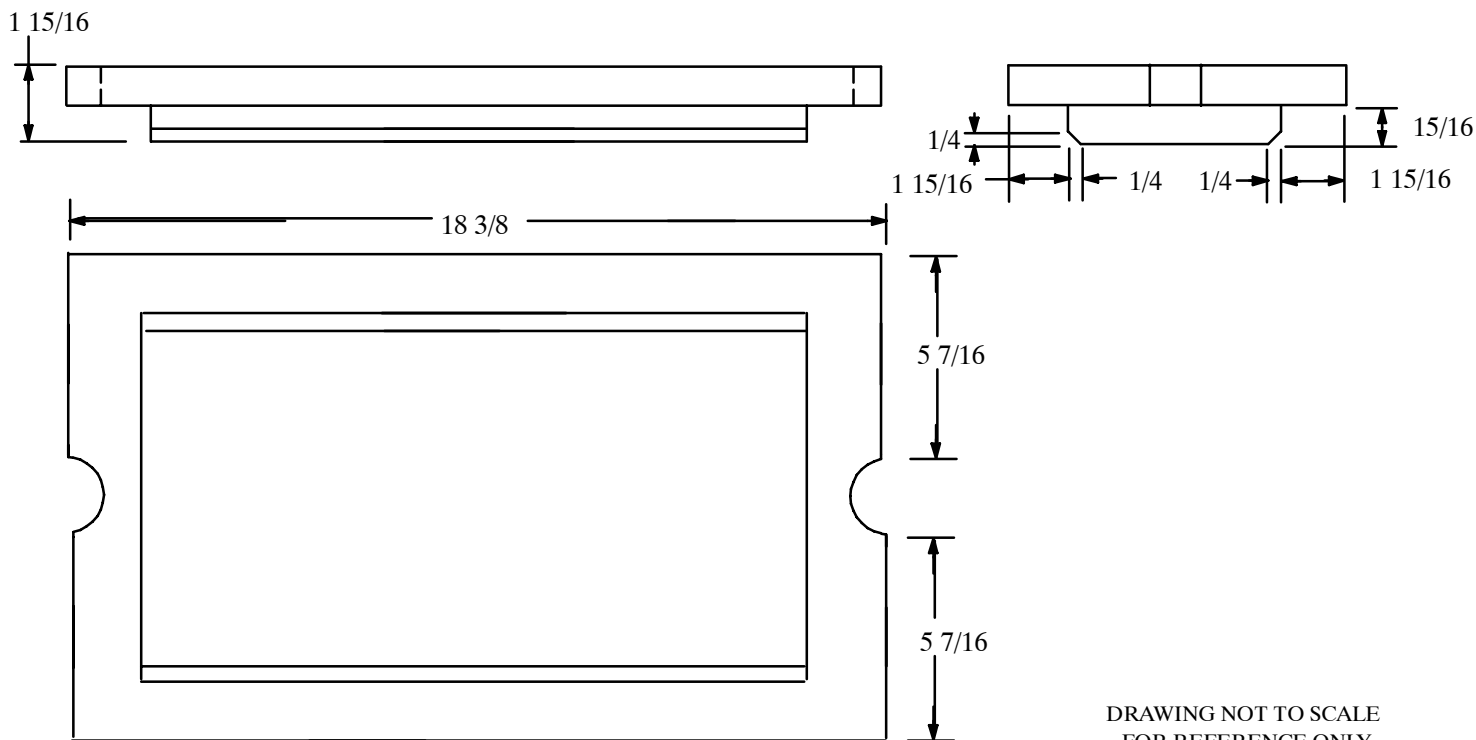


TOP PAD

(1 Required)

MATERIAL

Shall be 1.8 to 2.2 lbs density per cubic foot polystyrene. The R or thermal value of the material used shall be no less than 4.3 R-value per 1 inch thickness of material. The standard tolerance for material shall be $(- +) .09$ inches. Suggested source of supply is: FPM Expandable Polystyrene, 2053 Commerce Street, Lancaster, Ohio 43130 Phone number (740) 687-5934



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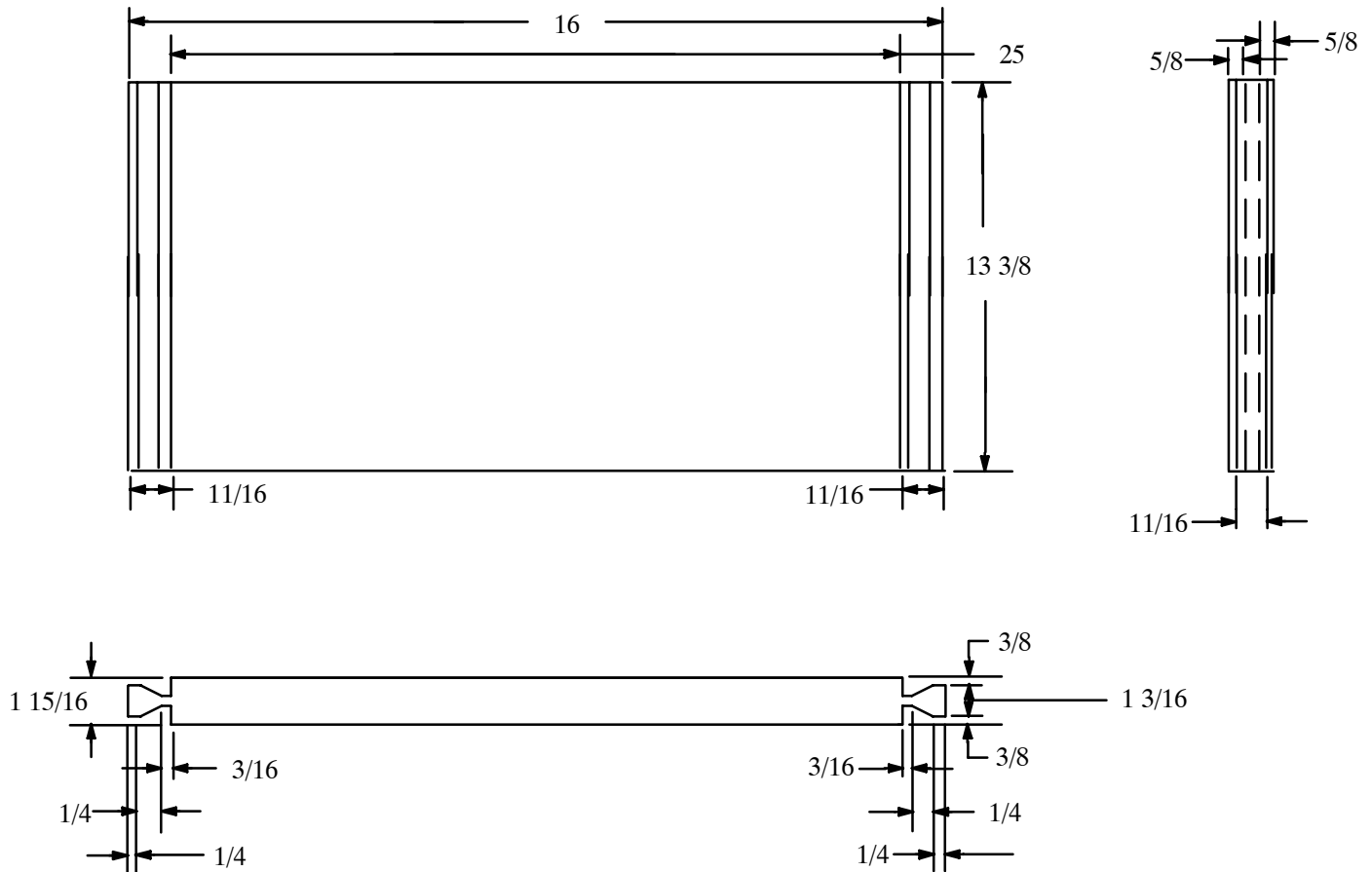
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SIDE PAD

(2 Required)



DRAWING NOT TO SCALE
FOR REFERENCE ONLY

MATERIAL:

Shall be 1.8 to 2.2 lbs density per cubic foot polystyrene. The R or thermal value of the material used shall be no less than 4.3 R-value per 1 inch thickness of material. The standard tolerance for material shall be $(- +) .09$ inches. Suggested source of supply is: FPM Expandable Polystyrene, 2053 Commerce Street, Lancaster, Ohio 43130 Phone number (740) 687-5934

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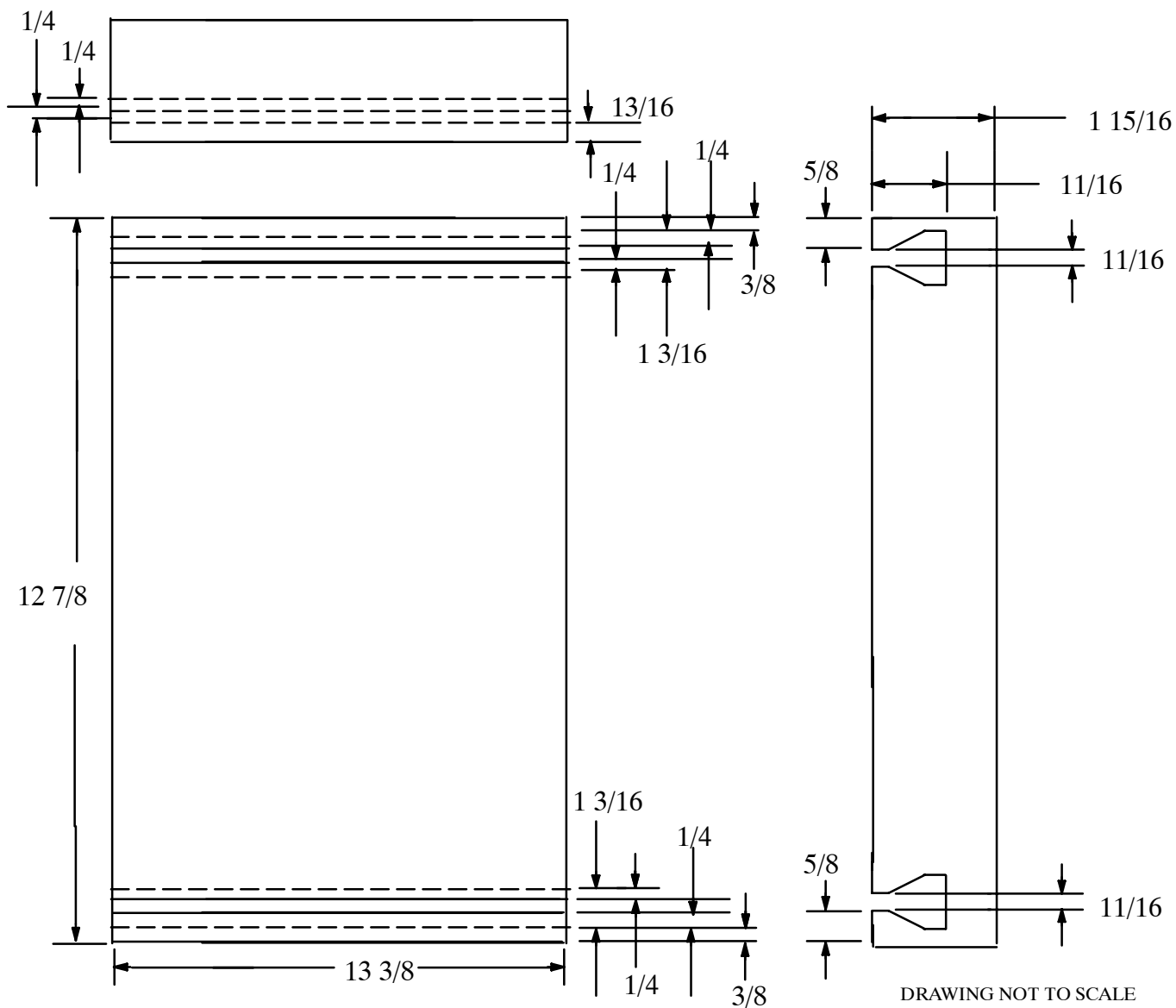
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END PAD

(2 Required)



DRAWING NOT TO SCALE
FOR REFERENCE ONLY

MATERIAL:

Shall be 1.8 to 2.2 lbs density per cubic foot polystyrene. The R or thermal value of the material used shall be no less than 4.3 R-value per 1 inch thickness of material. The standard tolerance for material shall be $(- +) .09$ inches. Suggested source of supply is: FPM Expandable Polystyrene, 2053 Commerce Street, Lancaster, Ohio 43130 Phone number (740) 687-5934

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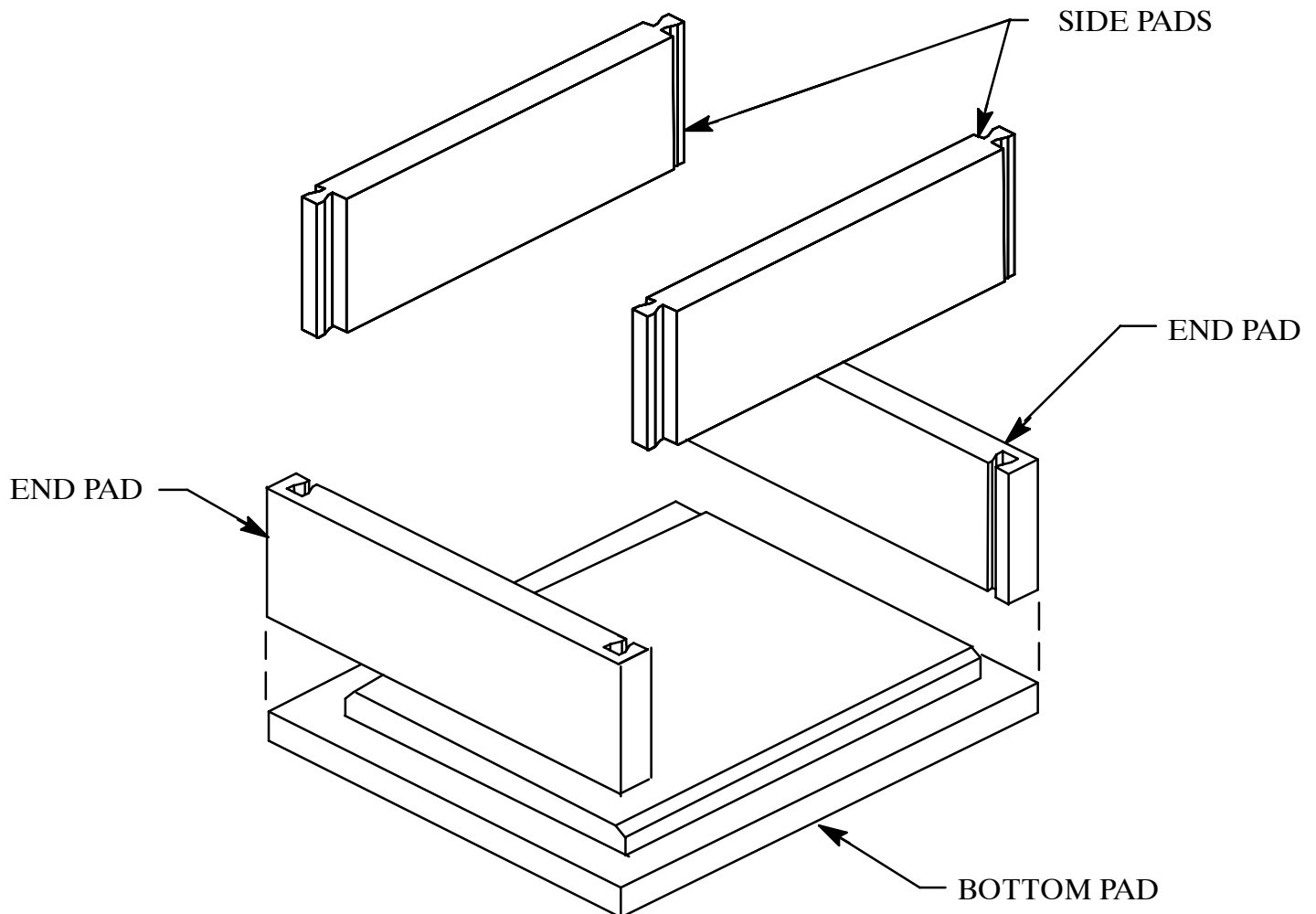
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COOLER PACK ASSEMBLY



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Note: Top Pad not shown

- (P) –Place the cooler pack assembly as shown on page 10 of this SPI in a Weather Resistant, Grade V3c, Variety SW, Type RSC, fiberboard container in accordance with ASTM D 5118. The size of the fiberboard container shall be 18 5/8 x 13 1/8 x 15 5/8 inches interior dimensions.
- (Q) –Place the fiberboard container containing the Cooler pack and the 10 DOD Biological Sampling kits inside the ASTM D 6251 plywood panel box. When required fiberboard filler pads shall be applied to

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insure a tight fit of the packaging components. Fiberboard filler pads shall be Class WR, Variety SW, Grade W5c or V3c, Type CF in accordance with ASTM D 4727. Filler pads shall be applied between the fiberboard and the inside of the plywood panel container. Bottom and top pads shall be 17 x 12 1/2 inches. End pads shall be 13 x 15 inches. Side pads shall be 18 x 15 inches.

- (R) – The top panel shall be secured to the container using 6 penny nails and the spacing criteria specified for the attachment of all panels. In lieu of the strapping requirements as specified in ASTM D 6251, two straps shall be used and shall be placed girth wise as shown on page 11 of this SPI. Strapping shall be Type 1, regular duty, Finish B, Grade 2 in accordance with ASTM D 3953. Width of strapping shall be at least 3/8 wide and at least .010 inches thick. Length of strapping shall be as required. Seals shall be Finish B, Regular Duty, Grade 2, Style I, III or IV. Size of seals shall be as required to match the strapping it is being used with.

(S) – **Intermediate Packaging and Packaging.**

Level A Exterior Shipping Container. When Shipping the DOD Biological Sampling Kit the ASTM D 6251 cleated panel box (steps 14 and 15) of this SPI shall serve as the level A exterior shipping container. Intermediate packaging is not required..

Level B Exterior Shipping Container. When Shipping the DOD Biological Sampling Kit the ASTM D 5118 Fiberboard Container (steps 12 and 13) of this SPI shall serve as the level B exterior shipping container. The ASTM D 6251 cleated panel box (steps 14 and 15) is not required. Intermediate packaging is not required.

- (T) – In addition to the marking requirements of MIL–STD–129 the following special marking shall be applied:

1. The barrier bag (step 7) and the fiberboard container (step 13) shall be marked with the following information:

- a. Manufacture Date
- b. Panel Expiration date
- c. Phosphate Buffer Saline lot number
- c. Kit Lot Number
- d. Shelf Life markings
- e. Kit expiration Date
- f. Special Marking:

“NOT FOR DIAGNOSTIC USE”

“NOT FOR HUMAN CONSUMPTION”

“Keep From Freezing, Keep from heat over 140 Degrees F.”

2. The following markings shall be applied to the exterior shipping container:

- a. Manufacture Date
- b. Panel Expiration date
- c. Phosphate Buffer Saline lot number
- c. Kit Lot Number
- d. Shelf Life markings

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e. Kit expiration Date

f. Special Marking:

“PROTECT FROM FREEZING

TEMPERATURE SENSITIVE MATERIAL

EXPEDITE SHIPMENT AND MOVEMENT

APPLY TEMPERATURE CONTROL AT FINAL DESTINATION.”

3. In addition to the special markings as shown in (2) f. above the marking shall be in in red print at least 48 print and placed on the marking side of the exterior shipping container. If there is not enough room on the marking side of the exterior side of the container. The label shall then be placed on top of the exterior shipping container.

(U) – In addition to the marking requirements found in note (T) apply one self adhearing Temperature sensitive label on the marking surface of each inner barrier bag (step 1 of this SPI) and apply one self adhering Temperature sensitive label on the marking surface on each of the 10 outer barrier containers and (steps 6 and 7 of this SPI). Insure that the Temperature sensitive label does not cover any of the markings as required in note (T). The label shall be model, TL–S–140, manufactured by OMEGA Engineering Inc. P O Box 4047, Stamford, CT 06907–0047, Phone number 1–888–846–8865, Fax number (203) 359–7700. Web Site “www.omega.com”.

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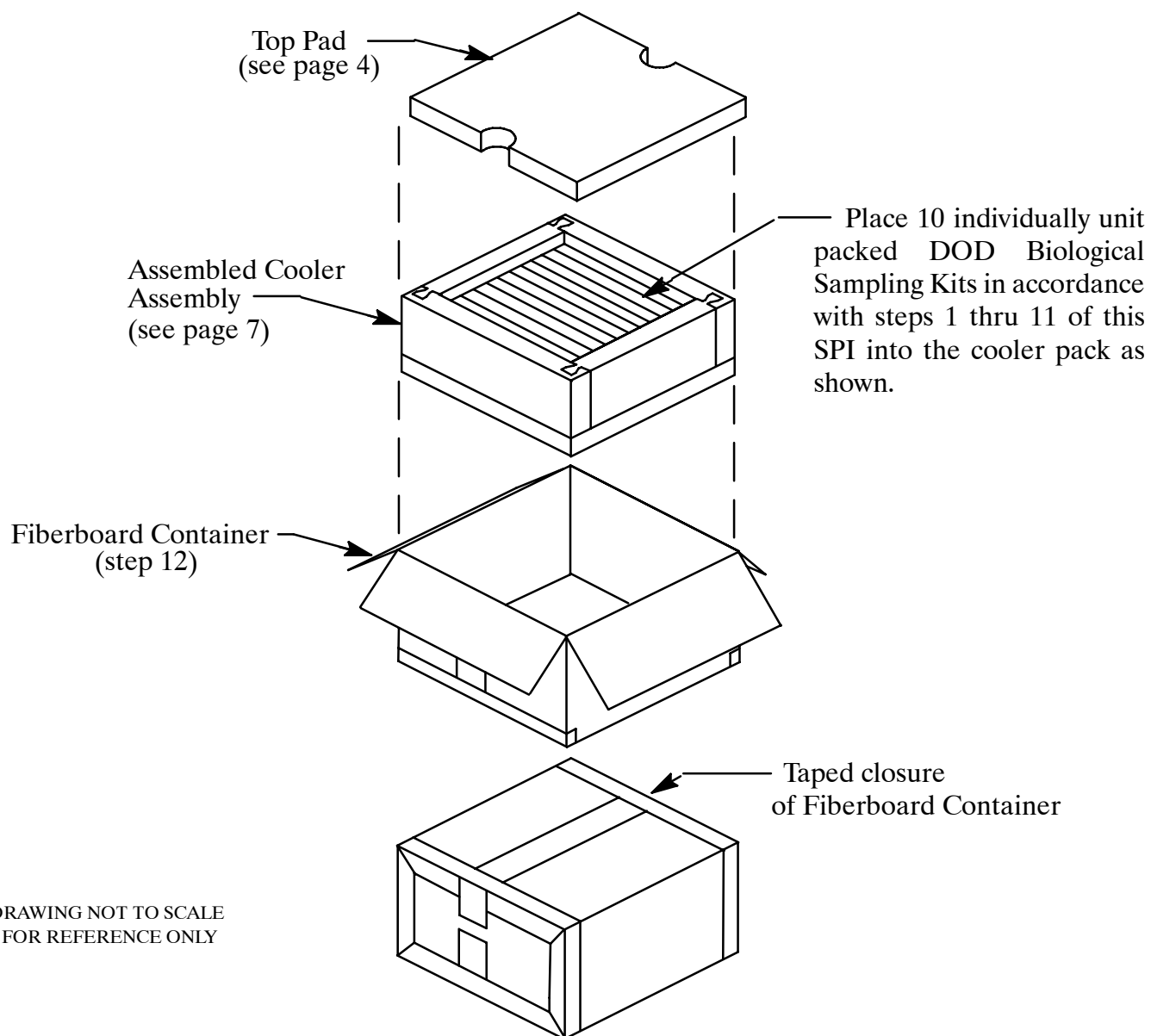
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PLACEMENT OF ITEMS WITHIN CONTAINER



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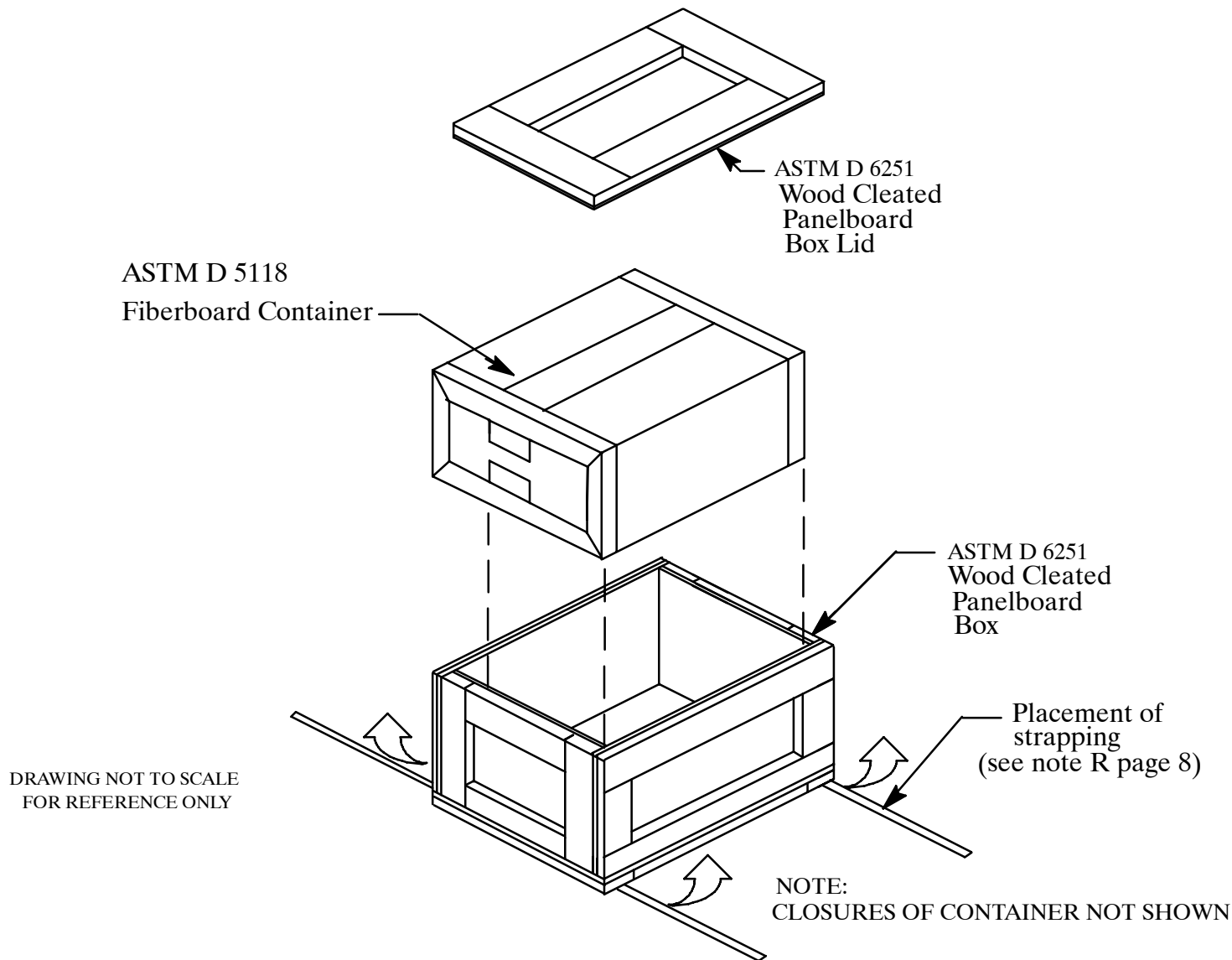
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LEVEL A EXTERIOR SHIPPING CONTAINER

(When Required)



(V) – **Barrier bag leakage test.** The barrier bag (step 7 of this SPI) shall show no signs of leakage, as evidenced by a continuous stream of bubbles which appear at any surface when tested in accordance with Part V, 501 of this PQAP

(W) – **Heat seal seam.** The heat seal seam of the barrier bag (step 7 of this SPI) shall show no sign of heat seam separation when tested in accordance with Part V, 502 of this PQAP.

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(X) – PACKAGING QUALITY ASSURANCE PROVISIONS (PQAP)

Part I – Applicable Documents

Military standards

- MIL–STD–2073–1 – Standard Practice For Military Packaging
- MIL–STD–1916 – Department Of Defense Test Method Standard
- MIL–STD–3010 – Department of Defense Test Method Standard

Part II – Quality Provisions.

1. First Article Inspection. The first article packaging sample shall be taken from the sample of DOD Biological Sampling Kits PJPOBSK–10 (Operational) or PJPOBSK–20 (Training) as applicable or as specified in the applicable contract of Specification for the item; however these samples shall be packaged as specified herein. The packaging Sample size for First Article Inspection shall be 3 packaged DOD Biological Sampling Kits PJPOBSK–10 (Operational) or PJPOBSK–20 (Training) as required. In addition 3 empty unit pack containers (step 7) shall be removed from the lot and shall be subjected to the destructive test in accordance with Part V, 502 of this SPI. The sample of empty bags shall be produced using the same methods, materials, and equipment as will be used during regular production. These samples shall be subjected all of the inspections and examinations as specified in this PAQP. If required, special sampling, inspection and acceptance criteria are contained in Part III of this PQAP and inspected for compliance with any or all of the requirements of this SPI.

a. Acceptance Criteria. If any first article sample fails to comply with any of the requirements, the first article sample shall be rejected.

2. Conformance Inspection.

a. Sampling. Sampling shall be conducted in accordance with the attributes sampling plan of MIL–STD–1916 using the verification levels (VLs) specified herein. The packaged DOD Biological Sampling Kits PJPOBSK–10 (Operational) or PJPOBSK–20 (Training) as applicable shall be subjected to the following nondestructive inspections:

b. Inspection. Inspection shall consist of examination and test of all the characteristics contained in Part III of this PQAP.

3. Inspection equipment coding.

- CE – Commercial inspection equipment
- VI – Visual inspection

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PJPOBSK**PART III – INSPECTION REQUIREMENTS**
CLASSIFICATIONS OF CHARACTERISTICS

<u>Category</u>	<u>Characteristic</u>	<u>Sampling and acceptance criteria</u>	<u>Inspection method</u>
<u>Critical:</u>	None Defined		
<u>Major:</u>	None Defined		
<u>Minor:</u>			
101	Item completely clean and dry prior to unit packaging	VL–II	VI
102	All components of the DOD Biological Sampling Kit present and correct	VL–II	VI
103	Container (Step 1) evident and correct	VL–II	VI and CE
104	Desiccant (step 2) evident and correct	VL–II	VI
105	Barrier bag closure (step 3) evident and correct	VL–II	VI and CE
106	Wrap (step 4) or Alternate pouch evident and correct	VL–II	VI and CE
107	Tape (step 5) evident and correct	VL–II	VI and CE
108	Container (step 6) evident and correct	VL–II	VI and CE
109	Container closure (step 7) evident and correct	VL–II	VI and CE
110	Bottom pad (step 8) evident and correct	VL–II	VI and CE
111	Side Pads evident and correct (step 9)	VL–II	VI and CE
112	End Pads evident and correct (step 10)	VL–II	VI and CE
113	Top pads evident and correct (step 11)	VL–II	VI and CE
114	Assembly of cooler pack assembly evident and correct	VL–II	VI and CE
115	Fiberboard container (step 12) evident and correct	VL–II	VI and CE
116	Closure of Fiberboard container (step 13) evident and correct	VL–II	VI and CE
117	Container (step 14) evident and correct (when required)	VL–II	VI and CE
118	Fiberboard fillers evident and correct (when required)	VL–II	VI and CE
119	Container closure (step 15) evident and correct (when Rqd)	VL–II	VI and CE
120	Temperature sensitive labels evident and correct	VL–II	VI
121	Marking evident and correct	VL–II	VI and CE

PART IV – CERTIFICATION REQUIREMENTS Certification shall be required for each characteristic specified below and shall include actual examination and test results when required herein. Results of examinations and tests shall be on file at the contractor's facility and shall be available to the Government for review.

<u>NUMBER</u>	<u>Characteristic</u>	<u>To comply with</u>
401	Packaging material	Applicable specification or standard specified in this SPI.

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PART V – TEST METHODS AND PROCEDURES

501 Unit pack assembly container leakage. The barrier bag (step 7 of the SPI) containing the DOD Biological Sampling Kits PJPOBSK–10 (Operational) or PJPOBSK–20 (Training) as applicable shall not leak when tested in accordance with Test Method 5009, the hot water technique of MIL–STD–3010.

502 Heat–seal seam strength. The heat seal seam of the empty barrier bags, step 7 of this SPI, shall be tested in accordance test method of MIL–STD–3010.